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| Applicant's or agent's file reference 0000054023 | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP2003/011932 | International filing date (day/month/year) 28 October 2003 (28.10.2003) | Priority date (day/month/year) 30 October 2002 (30.10.2002) |
| International Patent Classification (IPC) or national classification and IPC C08K 5/13 | | |
| Applicant BASF AKTIENGESELLSCHAFT | | |

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| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>3</u> sheets.</p> |
| <p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p> |

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| Date of submission of the demand 07 April 2004 (07.04.2004) | Date of completion of this report 02 December 2004 (02.12.2004) |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/011932

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-18 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1-10 _____, filed with the letter of 10 November 2004 (10.11.2004)
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/11932

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | | |
|-------------------------------|--------|------|-----|
| Novelty (N) | Claims | 1-10 | YES |
| | Claims | | NO |
| Inventive step (IS) | Claims | 1-10 | YES |
| | Claims | | NO |
| Industrial applicability (IA) | Claims | 1-10 | YES |
| | Claims | | NO |

2. Citations and explanations

This report refers to the following document (D1) cited in the search report:

D1: EP-A-0 289 077 (SHELL INT RESEARCH) 2 November 1988 (1988-11-02)

1. Novelty (PCT Article 33(2))

Independent claim 1 of the present application claims a mixture containing: (a) a phenolic dicarboxylate as a stabiliser with a specific formula: a bis(3-(3,5-di-tert.-butyl-4-hydroxyphenyl)propanoate containing n ethylene glycol units; (b) at least one reducing agent.

Independent claim 2 of the present application claims a similar mixture containing a bis(3-(3,5-di-tert.-butyl-4-hydroxyphenyl)propanoate containing 1 to 10 butylene glycol units.

The subject matter of claims 1-10 meets the requirements of PCT Article 33(2).

2. Inventive step (PCT Article 33(3))

With respect to the inventive step of claim 1: D1, the closest prior art, describes a stabilised

composition containing phenolic diesters of the formula (I): the formula of claim 1 of the present application is achieved by a selection from the groups R1, R2 (tBu), x (2) and y (2).

Similarly, the formula of claim 2 is achieved by a selection from the groups R1, R2 (tBu), x (2) and y (4). A person skilled in the art would not make such a selection from four lists.

None of the search report citations discloses a method for producing phenolic stabilisers using reducing agents.

The subject matter of claims 1-10 therefore meets the requirements of PCT Article 33(3).

3. Industrial applicability (PCT Article 33(4))

The subject matter of claims 1-10 is industrially applicable.